Application No: 10/786,455

Amendments to the Claims

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

(currently amended) A circuit for processing multichannel audio signals in a plurality
of channels comprising a right channel, a left channel and a central channel, the circuit
comprising:

a frequency characteristics correction device for correcting frequency characteristics of an audio signal of [[a]] the central channel, comprising an audio signal component having a predetermined frequency band, of audio signals of a multichannel comprising at least a right channel and a left channel, in accordance with, utilizing correction characteristics determined based on a head related transfer function to output a corrected signal; and

a band-pass filter for extracting a predetermined frequency band from the corrected signal from the frequency characteristics correction device to output an extracted signal;

a band eliminate filter for removing said predetermined frequency band from the corrected signal from the frequency characteristics correction device to output central channel audio signals;

an output device for mixing the audio signal component having the frequency characteristics corrected said extracted signal with an audio signal of the right channel and an audio signal of the left channel to generate mixed output audio signals, and outputting said mixed output audio signals as a right channel output audio signal and a left channel output audio signal.

- 2-3. (canceled)
- 4. (original) The circuit as claimed in Claim 1, further comprising:

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a device for mixing the audio signal of said right channel with the audio signal of said left channel to generate a mixed input audio signal, said frequency characteristics correction device correcting frequency characteristics of said mixed input audio signal.

5. (canceled)

6. (original) The circuit as claimed in Claim 1, wherein:

said correction characteristics are determined based on a ratio of the head related transfer function for a sound, which is propagated in a straight direction to a front side of an audience, to the head related transfer function for a sound, which is propagated to the audience in a direction deviating rightward or leftward from said straight direction by a predetermined angle.

7. (original) The circuit as claimed in Claim 1, wherein:

said predetermined frequency band comprises frequency bands corresponding to a human voice.

- (currently amended) An apparatus for reproducing multichannel audio signals, comprising:
- a decoder for decoding input audio stream data to generate audio signals of a multichannel plurality of channels; and
- a circuit for processing multichannel audio signals in a plurality of channels comprising a right channel, a left channel and a central channel, said circuit comprising (i) a frequency characteristics correction device for correcting frequency characteristics of an audio signal of [[a]] the central channel, comprising an audio signal component having a predetermined frequency band, of audio signals of a multichannel comprising at least a right channel and a left channel, in accordance with, utilizing correction characteristics determined based on a head related transfer function to output a corrected signal; (ii) a band-pass filter for extracting a predetermined frequency band from the corrected signal from the frequency characteristics correction device to output an extracted signal; (iii) a band eliminate filter for removing said predetermined frequency

band from the corrected signal from the frequency characteristics correction device to output central channel audio signals; and (iiiv) an output device for mixing the audio signal having the frequency characteristics corrected said extracted signal with an audio signal of the right channel and an audio signal of the left channel to generate mixed output audio signals, and outputting said mixed output audio signals as a right channel output audio signal and a left channel output audio signal.

- (currently amended) A program for reproducing multichannel audio signals in a
 plurality of channels comprising a right channel, a left channel and a central channel,
 which is to be executed by a computer, to cause the computer to function as:
- a frequency characteristics correction device for correcting frequency characteristics of an audio signal of [[a]] the central channel, comprising an audio signal component having a predetermined frequency band, of audio signals of a multichannel comprising at least a right channel and a left channel, in accordance with, utilizing correction characteristics determined based on a head related transfer function to output a corrected signal; and

a band-pass filter for extracting a predetermined frequency band from the corrected signal from the frequency characteristics correction device to output an extracted signal;

a band eliminate filter for removing said predetermined frequency band from the corrected signal from the frequency characteristics correction device to output central channel audio signals:

an output device for mixing the audio signal having the frequency characteristics corrected said extracted signal with an audio signal of the right channel and an audio signal of the left channel to generate mixed output audio signals, and outputting said mixed output audio signals as a right channel output audio signal and a left channel output audio signal.